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FACTORS AFFECTING ALCOHOL USE AMONG WOMEN IN GHANA



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ACCEPTANCE

Accepted by the Faculty of Social Studies, University of Ghana, Legon in partial fulfillment of the requirement for the degree of MA Population Studies.

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Signature



Date

DECLARATION

I MAURICE ANYAWIE do hereby declare that, except for the duly acknowledged citations of references and ideas, this work is my original work undertaken at the Regional Institute for Population Studies, University of Ghana, from August 2012 to August 2013, and that neither part nor whole of this work has been presented elsewhere for another degree.

Signed.....

Maurice Anyawie (Student)



Date.....

DEDICATION

I dedicate this work to my mother, Deaconess Victoria Anyawie



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I wish to express my foremost gratitude to the Almighty God for His immense protection and guidance throughout the study of this postgraduate programme and the writing of this dissertation. I cannot mention the names of all those who have supported me through this dissertation, but my sincere gratitude goes to my supervisor and the director of the Regional Institute for Population Studies Prof. Samuel N.A. Codjoe whose directions, encouragement and constructive criticisms have invariably given shape to this work. My prayer is that the good Lord Almighty shall continue to bless him for the many lives that he is transforming. My unreserved thanks also go to the following PhD and MPhil students who helped me in the statistical analysis of this study: Adriana A.E. Biney, Abu Mumuni, Reuben T. Larbi, Frank Arthur and Ernest Afrifa. I finally wish to place on record my indebtedness to my family members: Victoria Anyawie, Nancy Anyawie, Eunice Anyawie, Elizabeth Nyabaase, David Alagpunlinsa and Janet Nyabaase, friends and loved ones for their contributions in diverse ways to make my studies and dissertation a success. I say may you continue to dwell under the shadow of the Lord Almighty. Amen!

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ABSTRACT

Whilst there are claims that women in Ghana are involved in alcohol consumption behaviours that pose threats to the maternal health and social development of the country, extensive empirical research in Ghana to confirm these claims are unknown. Using a quantitative data sample of 548 women from the EDULINK Urban Health and Poverty wave II project, the study specifically examined the prevalence and socio-economic and demographic factors affecting alcohol use among women in Ghana. The unit of analysis employed was women within their reproductive ages, 15-49 years. The method of analysis for the study was univariate, bivariate and multivariate analyses. The study found that the prevalence rate of alcohol use among women was 33%. In the binary logistic regression model religiosity, employment, migration status and age of a woman were the statistically significant factors affecting alcohol use at the 0.05 significance level. Factors such as education, level of income and occupation were not statistically significant at both the bivariate and multiple regression stage. A nationwide longitudinal study on maternal alcohol use, with regards to the types of alcoholic beverage consumed, pattern and frequency of consumption as well as the associated social and health implications is needed to fully ascertain the problem of maternal alcohol use in Ghana.

Key words: Alcohol use, Women, Ghana

CHAPTER ONE

INTRODUCTION

1.1 Background

The World Health Organization (WHO) estimates that the worldwide per capita consumption of alcoholic beverages in 2005 equaled 6.13 litres of pure alcohol consumed by every person aged 15 years or older (WHO, 2011). From a public health perspective, globally, alcohol consumption causes 3.2% of deaths (1.8 million) and 4.0% of the Disability-Adjusted Life Years lost (58.3 million). The harmful use of alcohol is a particularly grave threat to men. It is the leading risk factor for death in males, mainly due to injuries, violence and cardiovascular diseases. This is a result of the fact that men outnumber women in weekly episodes of heavy drinking (Nolen-Hoeksena, 2004; WHO, 2004).

Studies have however shown that the gender gap in alcohol consumption between men and women is closing (e.g. Nolen-Hoeksena, 2004), though complete merge would be difficult due to the biological theoretical perspective on the physiology of women (Wilsnack et al, 2000). While there are several reasons for this close of gender differences, the major forces or factors are changes in *traditional* gender roles, changes in sanctions against women drinking, women empowerment and high level of education among women (Nolen-Hoeksena, 2004; Wilsnack et al, 2000; Keynes et al, 2008; Christie-Mitzell et al, 2009). The closing gender differences are more pronounced in the developed world than the developing world. In the USA, for example, the changes in gender differences in alcohol use started in the 1970s when *traditional* gender roles have changed since the baby boom birth cohort reached adulthood; resulting in greater proportion of women working outside the home (Keyes et al, 2008). The consequence is that these developed countries (e.g. USA, Australia) now have as high as over 80% of their women

ever consuming alcohol (WHO, 2004). The story of maternal alcohol consumption is, however, different in developing countries especially Africa (Martinez et al, 2011).

Alcohol use among women in Africa has traditionally been quite low, and high rates of lifetime abstention persist in many African countries (WHO, 2004). However, population-based surveys have recently documented rates of alcohol use and harmful drinking among African women that raise concern, including episodic binge drinking and regular high consumption. In Botswana and Namibia for example, prevalence of alcohol use in 2005 among women was estimated at 30% and 47% respectively (Weiser et al, 2006). Heavy drinking among women was also found in Nigeria and Uganda (Ibanga et al 2005; Tumwesigye and Kasirye, 2005). These rates are high to the extent that they pose psychosocial and health alcohol-related risks (like HIV/AIDS and mental disorders) to the women in the countries concern. What is more, studies have shown that greater amount of the alcohol consumed by women in Africa is illegally produced (e.g. WHO, 2011), meaning that there are even higher rates of unrecorded consumption among the women in the region.

1.2 Problem Statement

In Ghana about 30 million litres of alcohol is consumed yearly. A survey conducted by the Ghana organisation on Foetal Alcohol Syndrome (GOFAS) estimated that the per capita consumption of Alcohol is 1.5 litres, about 7 million gallons of alcohol consumed annually (Kunnteh, 2008). While studies have shown that greater proportion of alcohol is traditionally consumed by men in Ghana (Luginaah and Dakubo, 2003; Luginaah, 2008), recent decades have fundamental changes in the role of women in Ghana and have brought about marked changes in their attitudes and behaviours toward alcohol (Adusi-Poku, 2011; Badasu, 2004; Oppong, 2004).

As such there are anecdotal claims that women in Ghana are involved in drinking behaviours that pose threat to the health development of the country especially in areas of maternal and reproductive health (Asomoah and Agardh, 2012; Adusi-Poku, 2011); and that the problem of alcohol ingestion extends into the gestation periods of these women, thereby causing teratogenic effects (Adusi-Poku et al, 2013; Asamoah and Agardh, 2012). The suspicion is amplified when a pilot study conducted by GOFAS in three regions of the country; i.e. Greater Accra, Central and Western revealed that 129 out of the 150 women of childbearing age, representing 86%, drunk various types of Alcohol (Opoku-Boakye, 2008).

While the claims may be confirmed by recent studies in other regions and countries on maternal alcohol consumption (Mullaly et al, 2011; SNIPH, 2009; Strandberg-Larsen, 2008; WHO, 2004; Albertsen et al, 2004), extensive empirical research are scanty, mostly based on men, and with unrepresentative sample sizes (e.g. Adusi-Poku, 2011; Asamoah and Agardh, 2012; Luginah, 2008; Luginah and Dakubo, 2003; Opoku-Boakye, 2008). This makes it difficult to fully ascertain the problem of alcohol use among women in the country. The purpose of this study therefore is to examine alcohol use among women in Ghana.

1.3 Objectives of the Study

The general objective of this study is to identify the factors affecting alcohol use among women in Ghana. The specific objectives are to;

- a. Examine the alcohol consumption levels among women in Ghana.
- b. Examine the socio-economic and demographic factors affecting alcohol use among women in Ghana.
- c. Make recommendations for policy implementation.

1.4 Justification for the study

The alcohol use prevalence among women has been of much interest to the developed countries. This is because of the various implications associated with its use especially during pregnancy. While extensive research has been done on maternal alcohol consumption in the developed world (especially USA, UK, and Austria), little is known about the situation in the developing countries, especially Africa (e.g. Martinez et al, 2011). In Ghana for example, literature on alcohol use are scanty with less emphasis on women (e.g. Luginaah and Dakubo, 2003; Akyeampong et al, 1996). Those on women are limited in scope and size and measured only the teratogenic effects of alcohol use during pregnancy (e.g. Asamoah and Agardh, 2012; Adusi-Poku, 2011), ignoring the factors influencing women to ingest alcohol.

A study on prevalence of alcohol use among women in Ghana is therefore needed because; despite some studies on alcohol use, the Government of Ghana is still reluctant to implement the 2008 National Alcohol Policy to regulate alcohol production and consumption. This might be because of the limited research conducted on the prevalence of alcohol use in Ghana (Luginaah and Dakubo, 2008; Adusi-Poku, 2011; Asamoah and Agardh, 2012), especially among women. Extensive research is therefore needed for government to fully ascertain the prevalence rates and factors among the population (women) within their reproductive ages (Luginaah, 2008; Adusi-Poku et al, 2012). This would inform government and other stakeholder to implement policies to regulate the kinds and amount of alcohol produced and ban consumption by certain groups of the population, especially women who are or intend to become pregnant (IAS, 2008); so as to promote psychosocial and reproductive health in the country, towards achieving the MDGs especially goals 4 and 5.

1.5 Limitations of the study

While this study is the most extensive empirical quantitative research on alcohol use among women in Ghana, there are some limitations to the study.

Firstly, the measurement of the outcome variable, alcohol use. Consistent with US National Health Interview Survey, this study measured alcohol use as those women reporting to have consumed alcohol in the past 30 days preceding the survey; and indicating that the socio-economic and demographic factors have caused the alcohol use by the women. While the US National Health Interview Survey describes alcohol consumption in the past 30 days as “current regular alcohol use” it might be that other predictor variables other than those used in this study influenced the alcohol consumption behaviours of the women. This could have impact on the results.

Also, taking into consideration the culture of sub-Saharan Africa and the fact that female alcohol users are often frowned upon (Luginaah, 2008), there is a likelihood that there was underreporting of alcohol consumption behaviour in this study (Martinez et al, 2011). This could also have influence the outcome of binary logistic regression model.

A nationwide longitudinal study is therefore needed to obtain more consistent results on the self-reporting of alcohol consumption behaviours. This is because the results on alcohol use from the EDULINK data makes a nationwide generalization difficult. Also, the outcome of the results of this study might have been influenced by the inability to differentiate the types of alcoholic beverage or investigate the adverse consequences of drinking. Consequently extensive studies on alcohol use should take into consideration the various types of alcoholic beverages

used and the patterns of consumption; since this could have different psychosocial and health implications on the women.

1.6 Organisation of the Study

The study is made up of seven chapters. Chapter one is the introduction. It covers the background of the study, problem statement, objectives, hypothesis and justification of the study. The second chapter reviews relevant literature for the study. It takes into consideration the socio-economic and demographic factors affecting alcohol use among women in Ghana. The methodology used for the study was discussed in chapter three. Chapter four; five and six discuss the results and discussions of the study. The final chapter, being the chapter seven, summarizes the main findings; whiles conclusion and recommendations were also taken into consideration.

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Introduction

This chapter reviews literature on the prevalence of alcohol use among women that is relevant to the present study. Specifically, it discusses the relevant studies done on the socio-demographic factors affecting alcohol use among women.

2.1.1 Education

Among all the socio-demographic characteristics of a woman, education has been found to be strongly associated with alcohol use. Oers et al (1999) found a positive correlation between the education of a woman and alcohol use. Their studies in Rotterdam, The Netherlands, found that at lower levels of education the abstainers for women are higher, compared to men. However, at higher educational levels the percentage of abstainer reduces to the same level for men and for women; to the extent that no significant difference in the prevalence of excessive drinking was found between educational levels for both sexes. Similar studies in UK found that women with higher educational qualifications were more likely than less educated women to be binge drinkers in their twenties; but by their early forties the pattern was reversed, with the less educated being more likely to binge drink (Jefferies et al, 2007). Contrary to the above, Murphy et al (2012) in their review paper on alcohol consumption in the former Soviet Union found that women with secondary education were less likely to drink frequently compared with women with primary education and then women with high education (Jukkala et al, 2008 cited in Murphy et al, 2012). Other studies analysed education but found not statistically significant

association with alcohol consumption, once other demographic variables were adjusted for (Pomerleau et al, 2008 cited in Murphy et al, 2012).

The explanation for the different patterns and associations in women at different educational levels is not obvious but it could relate to differences in domestic circumstances and employment (IAS, 2008). But, Less qualified women tend to have children, who may be an inhibiting factor, at an earlier age than more qualified women. Less qualified women may also work in employment settings with a heavier drinking culture (Jefferies et al, 2007). It could also be that, lower education is associated with heavy drinking because at lower levels or no education, women are likely to have no knowledge of the consequences of alcohol use, especially during pregnancy (Peadon et al, 2010).

2.1.2 Religion

Researchers have consistently found a positive relation between religious participation and healthy outcomes across multiple religions and populations (Ayers et al, 2009; Amankwa et al, 2012; Silva et al, 2009). For instance in their studies on drinking among Korean women in California, Ayers and colleagues (2009) found that religious beliefs and more conservative views of the Bible were strongly associated with a greater likelihood of abstention among women.

There are two explanations for the negative association of religion and alcohol use. (1) Some religious faiths explicitly prescribe good health habits and prohibit many unhealthy lifestyles including alcohol use, and (2) most faith groups teach that the body is a temple for the soul and that it should be treated with respect and appreciation (George et al, 2002; Ayers et al, 2009). The implication is that in religions and congregations where these teachings are absent, or women who do not attend most of the religious meetings, there tend to be less abstention or

heavy drinking among these populations (see Ellison et al, 2008; Kang Sim et al, 2011). For instance, Michalak et al (2006) found that denominations moderated the association between church attendance and choosing to drink or heavy drink. Study participants who attended churches whose doctrine favoured abstention were less likely to consume alcohol. Based on the above explanations, “Moslems and Protestants conservative religious denominations have the lowest percentage of members who drink alcoholic beverages, 53.6%. The religious groups with the highest proportion of members who use alcohol are the Jews, 92%, followed by Catholics, 79% and Liberal groups. In terms of heavy drinking, the highest levels of heavy drinking are reported by Catholics” (Kinney, 2000 cited in Adusi-Poku, 2011; p. 20). However, how religiosity is connected with drinking behaviours beyond doctrine remains largely unknown (Ayers et al, 2009).

2.1.3 Income Level

Studies have shown a statistically significant association between income and alcohol use. All other things being equal there is a positive relationship between income and alcohol use. Barros et al (2009) in a population-based study in Brazil found a significant positive association between disposal income and alcohol use. They found that prevalence of alcohol use was significantly lower among housewives and other occupations, as they earn no or meager incomes. Similar studies in the United States and District of Columbia also found a consistent increase in the prevalence of alcohol use by income; the Adjusted Odd Ratios indicated that the odds of alcohol use (specifically hazardous use) in each income group compared to the lowest income groups. Those in the highest income group had approximately twice the odds of hazardous use of alcohol compared those in the lowest group.

There is however mixed associations between income and alcohol use in sub-Saharan African countries, most of the alcohol consumed are locally and illegally produced and hence cheaper to purchase (WHO, 2011; Luginaah and Dakubo, 2003). Studies have therefore shown higher prevalence of alcohol use among populations including women within lower income groups in Africa (Dumbili, 2013; Luginaah and Dakubo, 2003; Mkandawire et al, 2011; Martinez et al, 2011). Consequently, because of the higher production of the local alcohol (e.g. *akpeteshie*, *palm wine*) in Ghana, which is cheaper compared to foreign beers and gins, a mixed association between income and alcohol use is expected among the women in the country; higher prevalence among women in very low and high income groups.

Explanations for relationships between income and alcohol use among women are not obvious, but Luginaah and Dakubo (2003) explained that higher prevalence exist among women with lower incomes due to the social learning perspective on alcohol use. In that women in an attempt to cope with the tragedies of poverty and domestic violence tend to heavy drink *akpeteshie* (a local gin in Ghana) bought by friends or served free of charge during funerals and other celebrations (Luginaah and Dakubo, 2003).

2.1.4 Age

The Institute of Alcohol Studies (2008) has found a positive relationship between the age of a woman and alcohol use; and that alcohol use prevalence is high among women in their 20s and 30s. Young and Powers (2005) reported that young women in Australia are more likely to consume alcohol than old women. There are some explanations to these: firstly, at younger ages, the women are still influenced by their peers; and so young women are more likely to use alcohol there are incidences of alcohol use among their peers (Simon-Morton et al, 2001). This because the peer influence perspective argues that peers encourage one another to adopt similar

behaviours and patterns (Seaman and Ikegwuonu, 2010). Another explanation is that younger women have fewer marital responsibilities compared to old women and often occupy professional and managerial positions in environments which are male dominant (IAS, 2008). Consistent with the above, Adusi-Poku et al (2012) found that alcohol use is most prevalent among women between the ages of 20 to 34 years old. Alcohol use, however, tends to decrease among women beyond this age group (Adusi-Poku et al, 2012).

2.1.5 Marital Status

There seem to be a significant association between marital status of a woman and alcohol use. A study in urban Tanzania showed that lifetime abstention is more prevalent among never-married women than their ever-married counterparts. But hazardous alcohol use was prevalent among never-married women (Mbatia et al, 2009). Similarly in his analysis of alcohol use among pregnant women in Bosomtwe District, Ghana, Adusi-Poku et al (2013) found that alcohol use is more prevalent among married women than unmarried women.

In the developed world, similar findings emerge about the marital status and alcohol use nexus. A longitudinal study among Australian women showed higher prevalence of alcohol abstention among never-married women than ever-married women. In terms of risky alcohol use however, never married women were found to exhibit risky behaviours toward alcohol use than their ever-married counterparts (Young and Powers, 2005). These findings are also consistent with a study in the UK which found heavy or risky drinking among single women (IAS, 2008).

2.1.6 Employment

Most research has shown that working women, especially work outside the home, are more likely to consume alcohol than their non-working counterparts. For instance, a study by

Chung et al (2007) on workplace and women's drinking in Korea noted that about 86% of the working women were users of alcohol.

There are some explanations for this relationship. Firstly, some investigators have speculated that women employed outside the home drink more than the unemployed because they have greater access to alcohol and drinking situations. They argue that drinking is a means by which women can gain status and blend into social situations. Thus, women are motivated to adopt the drinking patterns of men because they will want to bridge the idea of gender equality (Moore et al, 1997; Seaman and Ikeguowu, 2010). Another reason is that employed women due to the nature of their work are likely to suffer from job stress; and so in order to reduce stress they often resort to alcohol consumption especially during breaks hours and after working hours (Dawson et al, 2005; Moore et al, 1997; Harris and Frennell, 1988).

2.1.7 Occupation

Research has shown an association between the occupation of a woman and alcohol use. Depending on the type of occupation, women are more or less likely to consume alcohol. Studies have shown that women at the managerial and professional (e.g. doctors; police) are more likely to consume alcohol than women in other occupations and that as the level of position of the woman increases, she is more likely to increase the level of alcohol consumption (Moore et al, 1997; Ovuga and Madrama, 2006). The reason for this association is that managerial and professional occupations are traditionally male occupations; and so women entering into these occupations tend to adopt the coping strategies of these men, including alcohol ingestion levels (Moore et al, 1997).

2.2 Conceptual Framework

There are considerable a number of theories explaining alcohol consumption among populations. However, the two prominent theories are;

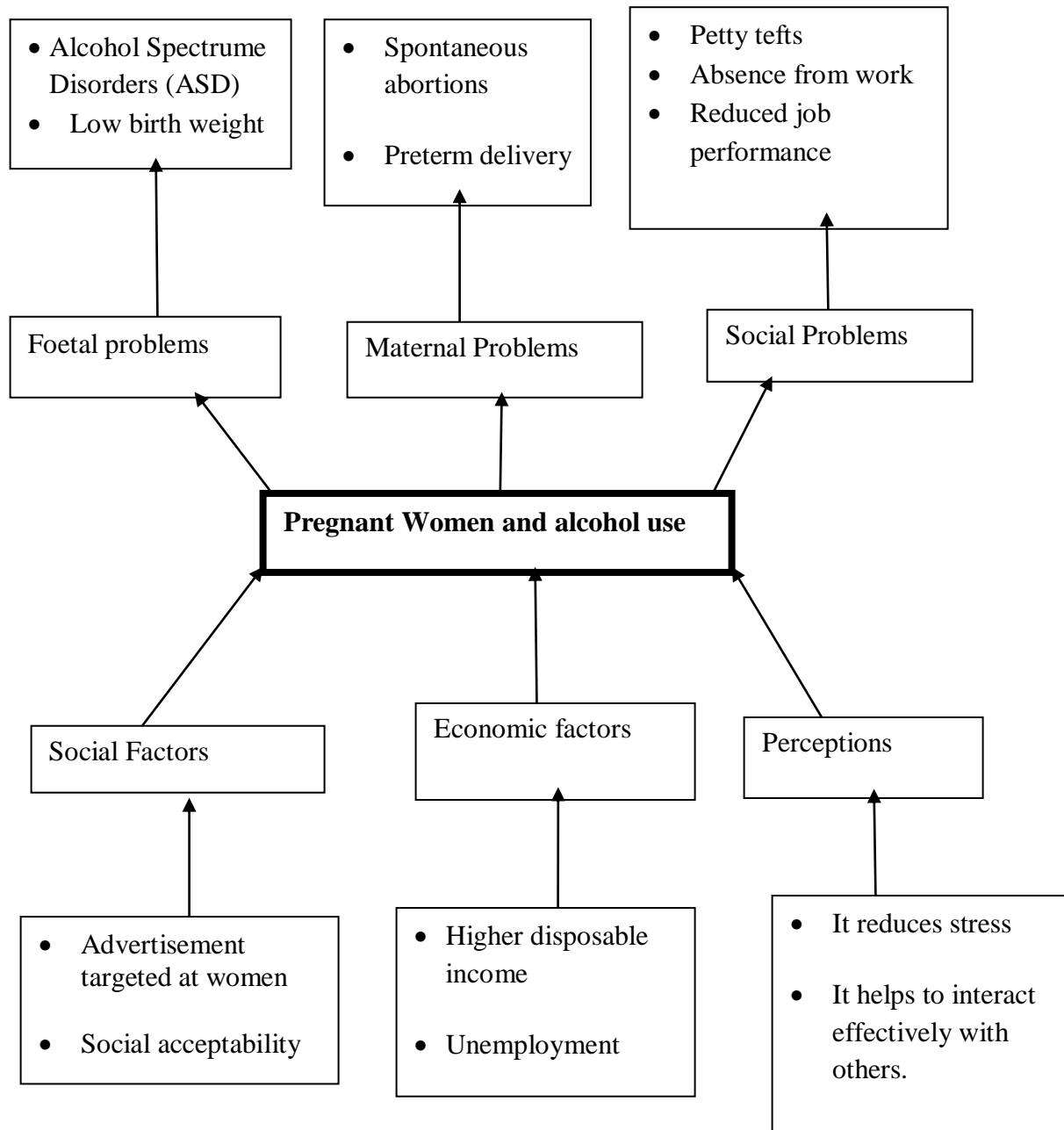
Firstly, the Social Ecological Theory: This model was first forwarded by McLeroy et al (1988) to provide a comprehensive explanation of why people behave in the manner that they do (Perko et al, 2006). The key concept in this model is that behaviour is multifaceted, social and environment issues being important contributing factors (Perko et al, 2006). The theory was modified by Hansen (1997) to establish the relation of social structure and alcohol use among college sports teams, but now widely used in non-academic environments especially in population-based studies. In relation to alcohol use, this model explains that the culture within which people use alcohol is affected by various levels of personal, social and environmental influences. Therefore, viewing the problem of alcohol consumption through the ecological perspective allows understanding of the systems in which populations make behaviour choice and determination of the factors that may affect their behaviour (Perko et al, 2006).

Another theory is the Social Learning Perspective. This draws attention to alcohol abuse as habitual maladaptive coping response adopted by individuals who hold beliefs about the effects of alcohol use (Luginaah and Dakubo, 2003). The theory explains that, individuals with insufficient coping responses and strategies to life are more likely to drink or heavy drink in response to stressful situation or circumstances in their everyday lives (Williams and Clark, 1998 cited in Luginaah and Dakubo, 2003).

Based on the above theories Adusi-Poku (2011) developed a model to study alcohol use and pregnant women in Bosumtwe District, Ghana; where he explained the various factors

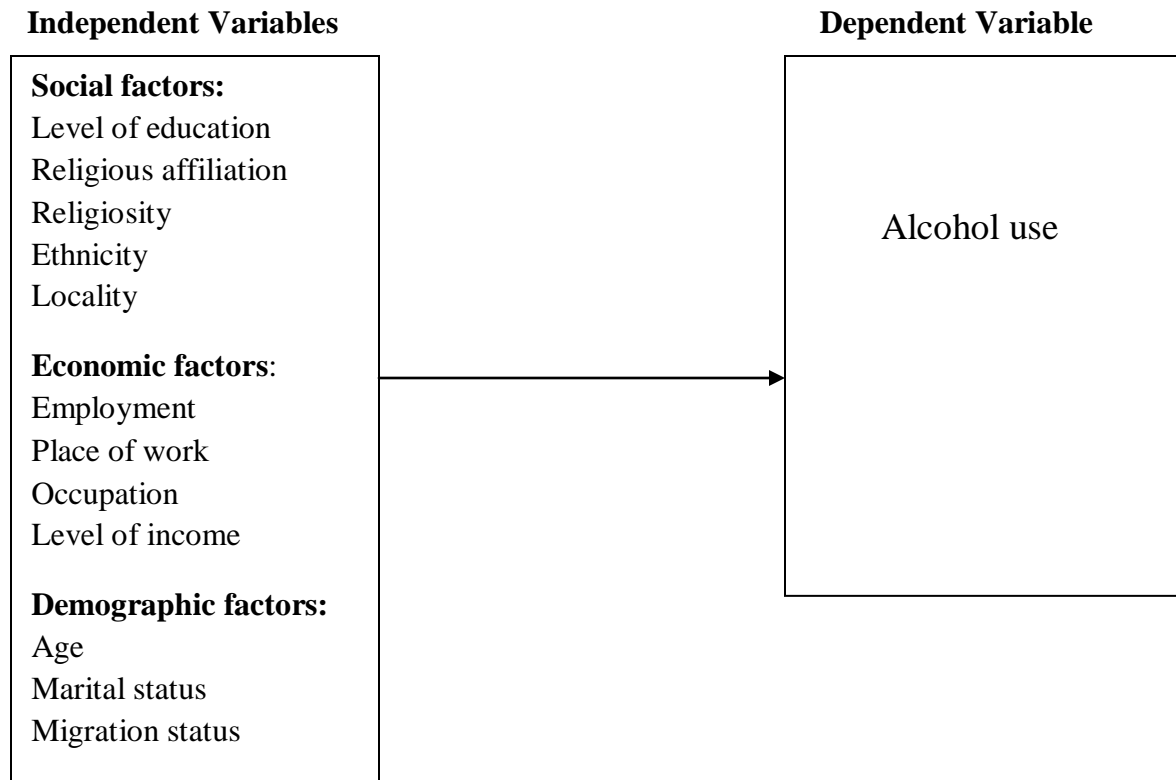
affecting alcohol use among pregnant women in the district, and also examined the implications of alcohol use among the women (figure 1).

In this study, the framework on factors affecting alcohol use among women draws on the conceptual framework of alcohol use and pregnant adopted by Adusei-Poku (2011). However, some of the predictor variables cannot be used because sufficient data are unavailable. Consequently, a modified conceptual framework has been created to correspond with the data available from the 2011 EDULINK project in Accra. Hence, figure 1 shows the factors affecting alcohol use among women in Ghana.

Figure 1: A Model of alcohol use and pregnant women

Source Adusi- Poku, 2011

Figure 2: A Framework to Study the Factors Affecting Alcohol Use among Women in Ghana



Source: Modified from Adusi-Poku, 2011

2.3 Research Hypothesis

The study is guided by the following hypotheses:

1. Women with tertiary education are more likely to consume alcohol compared to women with no education.
2. Married women are more likely to consume alcohol than their unmarried counterparts.
3. Women in formally employed positions are more likely to consume alcohol than those in other occupations.

CHAPTER THREE

METHODOLOGY

3.1 Sources of Data

The study uses data from the EDULINK Urban Health and Poverty Project. The Survey was conducted in 2011 to understand the relationship between population, health and poverty in Ghana, specifically among urban slum dwellers of Accra. Three urban slum communities were selected: Agboghloshie, James Town and Ussher Town. Though the project collected data on males and female respondents, the study comprise women respondents aged 15-49 years. Individual questionnaire were administered to collect information on women's background and mobility; reproduction; contraception; pregnancy, antenatal and post natal; immunization; work and livelihood; fertility preference; AIDS and other sexually transmitted diseases an general health matters. The sample consisted of 548 women within their reproductive ages. This study uses the data on general lifestyles where women were asked about their use of alcohol.

3.2 Dependent Variable

In this study alcohol use is the dependent variable. The question "Have you consumed alcohol in the last 30 days?" is used to measure alcohol use; respondents were to answer "yes" or "no". This question was used because it is considered women who really use alcohol would have consume some alcoholic beverage within the 30 days period. Those who answered "yes" were considered users of alcohol, and "no" non-users.

3.3 Independent variables

The measurement of the independent variables, modified from Asamoah and Agardh (2012), is as follows.

- i. *Age of the woman.* This variable is categorized into seven age groups (15-19, 20-24, 25-29, 30-34-35-39, 40-44, 45-49).
- ii. *Educational level.* This is classified in four categories. Firstly, never attended (women who confirmed having no formal education, and those whose educational levels are unknown. Secondly, Basic education (women with some level of formal education not exceeding nine years including those with primary, middle school, or lower secondary school education). Thirdly, Senior high school (women with up to 12 years of formal education or those whose education ended at the upper secondary school level). Lastly, Tertiary or high education (women who completed at least 15 years of formal education, including those with college, polytechnic, or university level studies).
- iii. *Marital status.* Marital status is classified in three categories. Single, married/living with partner, and separated/divorced/windowed.
- iv. *Religious affiliation.* This is classified in six categories. No religion (those who do not belong to any religion. Secondly, Catholics (those who attend the Roman Catholic Church). Thirdly, Protestants (those who emanated from the Catholic Church, including the Anglican church). Forth is other Christians, including the Jehovah witnesses. The fifth is Islam (those who believe in Prophet Mohammed). Lastly, Traditional/other (believers of smaller gods and other religions not mentioned).
- v. *Ethnicity.* This variable is categorize into seven (Akan, Ga-Dangme, Ewe, Guan, Mole-Dagbani, Grusi, Mande, other (specify).

- vi. *Employment.* This classified into two (yes, no)
- vii. *Occupation.* This variable is categorized into professional/technical, sales/services, skilled and unskilled.
- viii. *Income level:* this variable is in three categories (below 140, GHC 141-200, above 200)
- ix. *Religiosity;* Religiosity is defined in this study as the number of religious services a woman as attended. This was classified into three categories (once/more a week (more religious), once/more a month (religious), never (not religious)).
- x. *Migration Status* this was categorized into non-migrants (those born in the Greater Accra Region) and non-migrants (those born in other regions but was found in the Greater Accra Region)
- xi. *Locality.* The place where the women resided or were interviewed. They were three localities; James Town, Ussher Town, and Agbogbloshie.

3.4 Unit of Analysis

The unit of analysis employed in this study is women aged 15-49 years who were asked information on their use of alcohol within particular periods preceding the survey. There are two reasons for this focus. First, the physiology of women does not favour them to consume alcohol; and so even a little consumption could lead to social and health-alcohol related hazards (NIAAA, 2003). Among pregnant women for example, studies have shown positive significant correlation between alcohol ingestion and teratogenic effects like stillbirths, induced abortion, preterm delivery (e.g. Mullaly et al, 2011; SNIPH, 2009; Strandberg-Larsen, 2008; Albertsen et al, 2004). Studying alcohol use among women is therefore essential since attempts are still being made in Ghana to achieve Goals 4 and 5 of the MDGs. Second, research has shown that women's contribution in all has aspects of life including family welfare and national

development is visible (e.g. Parsitua, 2008) in Ghana. Hence it is important to study alcohol use among them. Since this could impair socio-economic development at the micro and macro level.

3.5 Method of analysis

For the purpose of this study, information on alcohol use is analysed to determine the prevalence of alcohol use according to the sociodemographic characteristics of the respondents. In order to examine the relationship between the independent and dependent variables, bivariate analysis and multivariate analysis are conducted to determine alcohol use. The bivariate analysis is used to observe a significant association between dependent and independent variables. At this stage each independent variable is crossed tabulated against the dependent variable and the significant ($p < 0.05$) of the association tested using the χ^2 test. Also, a multivariate analysis is employed in this study to examine the major factors that influence alcohol use in Ghana. The binary logistic regression model was carried out using the enter model, at the multivariate analysis. The statistical analysis for the present study are carried out using the SPSS statistical software package version 16.0 (SPSS Inc., Chicago, IL, USA cited in Dake et al, 2010).

CHAPTER FOUR

SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

4.1 Introduction

There are several factors affecting alcohol use in Ghana. The most prevalent factors are, however, the socio-economic and demographic factors indicated in the conceptual framework. In this chapter the social, economic and demographic characteristics of the women are discussed, to have a broader understanding of characteristics of independent variables that are likely to affect alcohol use. Alcohol use is also measured and discussed in this chapter.

4.2 Social Characteristics of Respondents

4.2.1 Educational Level

Table 4.1 shows that secondary education is about 63%. In this study, the percentage of tertiary educated women interviewed was only 2.4%. The educational characteristics of this study make prediction of alcohol use among women difficult. Unlike other studies which either had high prevalence of non-educated respondents (Luginaah and Dakubo, 2003) or higher number of tertiary educated women (Moore et al, 1997), the educational characteristics of this study is concentrated in the secondary education, making prediction somewhat tempting.

4.2.2 Religion

Table 4.1 shows that majority (47%) of the women were Pentecostals or Charismatic, while minority of the women were in traditional and other eastern religions. About five percent of the women were Catholics; and 5.7% did not belong to any religion.

According to Ayers et al (2009), religion has a significant relationship with alcohol use. Women in those religions or churches that preached against alcohol use and other unhealthy lifestyles are less likely to use alcohol. The expectations in this study are that relationships between religion and alcohol would be significant and that Catholics are more likely to use alcohol than any other denomination.

4.2.3 Religiosity

A question was asked to determine the number of times women attended religious services in the month preceding the survey. Sixty-five percent of the women in table 4.1 indicated that they attended religious services regularly (at least once a week). This was followed by women who never attended any religious service in the month prior to the survey (19.9%). The least (16.6%) was those who attend religious services once a while (at least once month). The results show that close to 50% of the women do not attend religious services regularly.

4.2.4 Ethnicity

Table 4.1 also shows that greater percentage (53.5%) or more than half of the women interviewed were of the Ga-Dangme ethnic group; followed by the Akan (approximately 29%). The rest of the ethnic groups together constituted 17% of the respondents. The Ga-Dangme were the majority because the EDULINK project was conducted in Accra, Greater Accra Region, which is where the ethnic group is found in Ghana.

Table 4.1 Social Characteristics of women

Educational Level	Frequency (F)	Percentage (%)
No education	42	7.7
Primary Education	147	26.8
Middle/JHS	244	44.5
Secondary	102	18.6
Tertiary	13	2.4
Total	548	100
Religion		
No Religion	31	5.7
Catholic	29	5.3
Protestants	114	20.8
Pentecostal/Charismatic	255	46.5
Other Christian	53	9.7
Islam	55	10.0
Others	11	2.0
Total	548	100
Religiosity	109	19.9
Never	109	19.9
Once a month	91	16.6
Once a week or more	348	63.5
Total	548	100.0
Ethnicity		
Akan	157	28.6
Ga-Dangme	293	53.5
Ewe	33	6.0
Guan	10	1.8
Gurma/Grusi/Mande	04	0.7
Mole-Dagbani	13	2.4
Other ethnic groups	38	6.9
Total	548	100.0
Place of Residence		
Ussher Town	282	51.5
James Town	167	30.5
Agbogbloshie	99	18.1
Total	548	100.0

Source: Computed by author from EDULINK dataset, 2011.

4.2.5 Locality

The data were collected in three localities: James Town, Agboghloshie and Ussher Town. Table 4.1 shows that slightly more than half of the women interviewed were residents of Ussher Town, followed by James Town (30.5%) and Agboghloshie (18.1%).

4.3 Economic Characteristic of the women

4.3.1 Employment

Table 4.2 shows that majority (about 80%) of the women were employed. The remaining 20% did not do any kind of work. Studies show that women who are employed are more likely to consume alcohol than the unemployed, especially if they are working outside the home (Dawson et al, 2005). It is expected in this study that as majority (80%) of the women are employed, alcohol use among this category would be higher than those unemployed. This is because it is often considered that employed women tend to imitate drinking habits of their co-workers, due to the idea of gender equality; and that working women tend to experience job stress and hence are likely to use alcohol (Moore et al, 1997; Dawson et al, 2005).

4.3.2 Occupation

Table 4.2 shows that more than half of women mentioned Sales/services as their occupation. This was followed about 18% of the respondents. Only 6.2% of the women were in the professional or technical positions; and about 25% of the women were either skilled or unskilled. Occupation of the respondents is a reflection of their educational level. As stated earlier most of the women had only primary and secondary form of education, meaning that their chances of working in the formal sector were slim. Perhaps this accounted for the larger proportion of them engaging in sales and services.

Table 4.2: Economic Characteristics of Women

Employed/Unemployed	Frequency	Percentage (%)
Employed	437	79.7
Unemployed	111	20.3
Total	548	1000
Place of work		
Home	398	93.9
Away	26	6.1
Occupation		
Professional/Clerical	27	6.2
Sales/services	301	54.9
Unskilled	35	8.0
Skilled	75	17.1
Total	438	100
Monthly income		
Below 141	200	49.8
141-200	114	28.1
Above 200	91	22.5
Total	405	100.

Source: Computed from EDULINK Project dataset, 2011

4.3.3 Income

The level of income of a woman is also likely to affect her use of alcohol. 4.2 shows that 49.8% of the women earned monthly income less than 140 Ghana cedis; followed by women who earned between 141 and 200 cedis. The least majority were those who earned above 200 Ghana cedis.

4.3.4 Place of Work

Table 4.2 shows that majority of the women interviewed worked at home— probably those whose who engaged in “sales/services” form of occupation, whiles the remaining 6.1% worked away from home. These results contradict literature especially most studies in the USA,

where greater of women of women began working outside the home, especially in the formal sector, since the 1970s (Keyes et al, 2008; Moore et al, 1997).

4.4 Demographic Characteristics of the Women

4.4.1 Age

Table 4.3 shows that over 60% of the women interviewed were between the ages of 20 and 39 years old. Only 22.2% of the respondents were above 40 years old. It is expected in this study therefore that greater percentage of the alcohol consumption should emanate from women within the age of 20s and 30s; because of the influences of their peers and; the fact that these age groups have less marital responsibilities as compared to women beyond these ages (Simon-Morton et al, 2001; Young and Powers, 2005).

4.4.2 Marital status

Table 4.3 further shows that approximately half of the women interviewed were either married or living with a partner. Also, approximately 34% of the women were “single” or not in conjugal relationships. The remaining 19% were divorced, separated or widowed.

In Table 4.3 women who had experienced sexual union were 65% of the total respondents. Based on other studies done in other setting and countries, it is expected that higher prevalence of alcohol use should prevail among these groups, since they have or are experiencing conjugal stress in terms of child care, domestic violence and other stresses related to marriage.

4.4.3 Migration Status

Table 4.3 shows that approximately 70% of the women were non-migrants (those born in the Greater Accra Region). The remaining 30% constituted the migrants—those born in other regions but were interviewed in Ga-Mashie, Greater Accra Region.

Table 4.3 Demographic Characteristics of the Respondents

Age	Frequency (F)	Percentage (%)
15-19	72	13.1
20-29	200	36.5
30-39	155	28.3
40-49	121	22.1
Total	548	100.0
Marital Status		
Married/with a Partner	256	46.7
Never Married	188	34.3
Ever Married	104	19.0
Total	548	100.0
Migration Status		
Non-Migrants	385	70.3
Migrants	163	29.7

Source: Computed by author from EDULINK dataset, 2011

4.4 Alcohol use

Table 4.4 shows that about 33% of the women consumed alcohol in the last 30 days preceding the survey; whilst the remaining (67%) did not use alcohol in the last 30 days.

The results from the study are equivalent to studies done on alcohol use among women in Botswana. In their study, Weiser et al (2006) found that 30% of the women in Botswana used alcohol. The prevalence rate of 33% in Ghana has shown that alcohol use among the women, if not unchecked, could have implications on the socio-economic and health development of the country. Just as studies have shown high prevalence of HIV/AIDS among women in Botswana,

Ghana, also being a developing country might experience some of these health implications if attempts are not made to manage the prevalence rate among the women in the country. A study by Luginaah (2008) on alcohol use and HIV/AIDS in the Upper West Region of Ghana has already shown the relationship between alcohol use and HIV/AIDS prevalence, especially among women in the Region. Other health implications include the foetal alcohol syndrome, induced abortions, stillbirths etc.

Table 4.4 Alcohol use in the past 30 days

Alcohol use	Frequency (F)	Percentage (%)
Yes	180	32.8
No	368	67.2
Total	548	100

Source: Computed by author from EDULINK dataset, 2011

CHAPTER FIVE

DISTRIBUTION OF SOCIO-ECONOMIC AND DEMOGRAPHIC FACTORS AND ALCOHOL USE AMONG WOMEN IN GHANA

5.1 Introduction

In this chapter the relationship between the dependent and independent variables are discussed. As indicated earlier there are many factors that affect alcohol use; but for the purpose of this study only the socio-demographic factors are discussed, as the EDULINK data would not allow a discussion of other factors. The social and economic factors are first related with alcohol use for any associations; whilst the demographic variables are then discussed.

5.2 Distribution of social factors and Alcohol use among women

As indicated in the conceptual framework, the social factors discussed are; Educational level, Religion, Employment status, occupation, Neighbourhood support, income level.

5.2.1 Education and alcohol use

Table 5.1 shows the relationship between alcohol use and Education. It shows no significant association between education and alcohol use at the 0.05 significance level. The study however shows higher prevalence of alcohol use among secondary educated women than those with no education (2.14%) and tertiary education (7.7%). Most research on the education and alcohol use has found increasing level of education relating to higher prevalence of alcohol use; because of the fact that educated women tend have less children and less family responsibilities (IAS, 2008). This study however found no significant relationship between education and alcohol use..

Table 5.1: Percentage distribution of Educational level and Alcohol use among women

Level of Education	Alcohol Use		Total
	Yes (%)	No (%)	
No education	21.4	78.6	42
Primary	35.4	64.6	147
Middle/JHS	36.1	63.9	244
SHS	29.4	70.6	102
Tertiary	7.7	92.3	13
$\chi^2= 8.329$	d.f.=4	p value =0.080	

Source: Computed from EDULINK dataset, 2011

5.2.2 Religion and alcohol use

Religion has been discussed by many studies to be associated with alcohol use. In this study, table 5.2 shows a significant association ($p=0.046$) between religion and alcohol use at the 0.05 significance level. The study shows that higher (48.4%) prevalence of alcohol use was among women with no religion. This was followed by women with other religions (e.g. traditional and eastern religions) (45.5%). The findings therefore confirm the work of Ayers et al (2009) on religion and alcohol use among Korean women in California, USA.

There are some reasons for this significant association between religion and alcohol use; firstly, it might be that some religious faiths explicitly prescribe good health habits and prohibit many unhealthy lifestyles including alcohol use (George et al, 2002; Ayers et al, 2009). This was found in the study, as table 3.2 shows that higher prevalence was associated with women with no religious affiliation. Another reason is that faith groups teach that the body is a temple for the soul and that it should be treated with respect and appreciation (George et al, 2002; Ayers et al, 2009). The implication is that in religions and congregations where these teachings are absent, or women who do not attend most of the religious meetings, there tend to be less abstention or heavy drinking among these populations (see Ellison et al, 2008; Kang Sim et al, 2011). Women in other religions or with no religion tend to fall in this category (Table 5.2).

Table 5.2 Percentage distribution of Religion and Alcohol use among women

Religion	Alcohol Use		Total
	Yes (%)	No (%)	
No Religion	48.4	51.6	31
Catholic	37.9	62.1	29
Protestant	37.7	62.3	114
Pentecostal/Charismatic	31.8	68.2	25
Other Christian	30.2	69.8	53
Islam	16.4	83.6	55
Traditional	45.5	54.5	11
$\chi^2=12.833$	d.f. = 6	p= 0.46	

Source: Computed from EDULINK dataset, 2011

5.2.3 Religiosity and alcohol use

Table 5.3 shows a significant association ($p=0.000$) between religiosity and alcohol use. It also shows that the number of times a woman attended religious service affects her likelihood of alcohol consumption. The table shows that women who have never attended any religious service in the past one month were the majority (48.6%) in alcohol use; followed by those who attended once or more in the past month. The least majority (26.7%) were women who attended religious services once or more in a week.

Table 5.3: Percentage Distribution of religiosity and Alcohol use among women

Religiosity	Alcohol use		Total
	Yes	No	
Once/more a week	26.7	73.3	348
Once/more a month	37.4	62.6	91
Never	48.6	51.4	109
$\chi^2=19.056$	d.f.=2	p=0.000	

Source: Computed from EDULINK dataset, 2011

These findings are consistent with Ayers et al (2009), Ellison et al (2008), Kang Sim et al (2011). These studies found that alcohol use prevalence was dependent on the number of religious meetings attendance. Women who did not attend most religious meetings tend to exhibit less abstention or heavy drinking than those who attended religious meetings. The reason

for this significant association is that the religious groups often moderate, through teachings, the association between religious attendance and choosing to drink or heavy drink (Michalak et al, 2006).

5.2.4 Ethnicity and alcohol use

Table 5.4 found a significant association between women's ethnicity and alcohol use. This finding is contrary to Barros et al (2009) who found no significant association between ethnicity and alcohol use. The Table shows that the Ga-Dangme ethnic group is the majority (42%) in alcohol use; followed by the Akan (27.8%). The remaining represented the rests of the ethnic groups.

There is no known literature for the reason behind this significant association; but it could be because majority of the women interviewed were Ga-Dangme and the fact that the study was conducted in an area where this ethnic group predominates. Ga-Mashie, and Agbogbloshie. Another reason could be based on the cultural beliefs on alcohol use in Africa. In African cultural practices, alcohol occupies a prominent position in the worship of their deities (Awoyinfa, 2012). Among the Ga-Dangme and Akan ethnic group for example, alcohol is seen as spiritual rather than physical or material food and so it is often use in ceremonies of birth, marriage, reunions, departures, death, and festival banquets (Hanson, 1995). Hence alcohol use might have been approved for use by all and sundry, including women.

Table 5.4: Percentage Distribution of Ethnicity and Alcohol use among women

Ethnicity	Alcohol use		Total
	Yes (%)	No (%)	
Akan	26.6	73.2	157
Ga-Dangme	42.0	58.0	293
Ewe	24.2	75.8	33
Guan	20.0	80.0	10
Gurma/Grusi/Mande	25	75.0	4
Mole-Dagbani	7.7	92.3	13
Other ethnic groups	7.9	92.1	38
$\chi^2=30.146$	d.f.=6	p=0.000	

Source: Computed from EDULINK dataset, 2011

5.2.5 Locality and alcohol use

Table 5.5 shows the distribution of each of the localities (James Town, Ussher Town and Agboghloshie) in terms of alcohol use. The study shows a significant association between locality and alcohol use. There is higher prevalence of alcohol use in Ussher Town (39.4%) than James Town (31.1%) and Agboghloshie (17.2%). It is to be noted that James Town and Ussher Town are indigenous communities, mostly occupied by the Ga-Dangme ethnic group, while Agboghloshie is a mixed ethnic locality mostly occupied by migrants.

Table 5.5: Percentage Distribution of Locality and Alcohol use among women

Locality	Alcohol use		Total
	Yes	No	
Agboghloshie	17.2	82.8	99
James Town	31.1	68.9	167
Ussher	39.4	60.6	282
$\chi^2=16.675$	d.f.=2	p=0.000	

Source: Computed from EDULINK dataset, 2011

5.3 Economic Factors

5.3.1 Employment and alcohol use

Table 5.6 shows that more employed women consume (36.8%) alcohol than unemployed women (17.1%). This finding is consistent with Chung et al (2007), Moore et al (1997) and Dawson et al (2007).

The significant association between employment and alcohol use is explained by the fact that, employed women often have access to alcohol use and drinking situations than their non-working counterparts (Moore et al, 1997); and that women who are working often experience job stress and so in order to reduce the stress they often resort to alcohol consumption especially after working hours (Dawson et al, 2005).

Table 5.6 Percentage Distribution of employment and Alcohol Use

Employment	Alcohol use		Total
	Yes	No	
Employed	36.8	63.2	437
Unemployed	17.1	82.9	111
$\chi^2=15.613$	d.f.=1	p=0.000	

Source: Computed from EDULINK dataset, 2011

5.3.3 Occupation and alcohol use

Table 5.8 shows a significant association between alcohol use and occupation. The study shows majority (41%) of alcohol prevalence rate to be among professional/clerical women as compared to any other occupation; confirming the hypothesis that professional/clerical women are more likely to consume alcohol than women who are not in these occupations.

Table 5.7 Percentage Distribution of Occupation and Alcohol Use among Women

Occupation	Alcohol Use		Total
	Yes	No	
Professional/clerical	40.7	59.3	27
Sales/services	38.9	61.1	301
Skilled	36.0	64.0	75
Unskilled	25.7	74.3	35
$\chi^2=2.507$	d.f.=3	p=0.474	

Source: Computed from EDULINK dataset, 2011

The significant association in this study, perhaps, is attributed to the fact that formally employed women, especially those in the professional and managerial positions, often attempt to adopt the coping strategies of these traditionally male occupations, including the ingestion of alcohol (Moore et al, 1997; Ovuga and Madrum, 2006). It is also attributed to the fact that women in managerial positions often want to bridge the idea of gender equality and so also indulge in drinking (Moore et al, 1997).

5.3.4 Income Level and alcohol use

Table 5.8 shows the association between the monthly income of a woman and alcohol use. The table shows no significant association between income level and alcohol use. It however confirms the hypothesis that the higher disposable income of women the more likely they are to use alcohol. Women with monthly income above GHC 200 were more likely to consume alcohol than those with lesser incomes.

Table 5.8: Percentage Distribution of Monthly income and Alcohol use among women

Monthly Income	Alcohol use		Total
	Yes (%)	No (%)	
Below 140	37.5	62.5	200
141-200	39.5	60.5	114
Above 200	39.6	60.4	91
$\chi^2=0.173$	d.f.=2	p=0.917	

Source: Computed from EDULINK dataset, 2011

5.4 Distribution of Demographic Factors and Alcohol Use

The demographic factors that are discussed in this study are: age, marital status and migration status.

5.4.1 Age and alcohol use

Table 5.9 shows that the prevalence rate of alcohol use increases as the age of the woman increases; reaching a peak at age group 30-39 years old, after which the percentage of abstention begins to increase. At $p=0.001$ the study confirms the work of IAS (2008). There reason for the significant association might be that at younger ages the women were single and still schooling and are therefore often easily influence by peers (Simon-Morton et al, 2001). It might also be that the highest prevalence rate among the 30-39 years age group is as a result of the fact that, women within this age group are often in their mid-careers with less martial responsibilities in terms of child bearing and care. But at 40 years onwards the prevalence rate begins to drop probably due to marital responsibilities and absence of peer pressure (IAS, 2008; Simon-Morton et al, 2001; Young and Powers, 2005).

Table 5.9: Percentage Distribution of Age and Alcohol use among women

Age group	Alcohol use		Total
	Yes	No	
15-19	12.5	8.5	72
20-29	34.0	66.0	200
30-39	38.1	61.9	155
40-49	36.4	63.5	121
$\chi^2=21.047$	d.f.=6	p=0.001	

Source: Computed from EDULINK dataset, 2011

5.4.2 Marital status and alcohol use

Table 5.10 shows a significant association between marital status and alcohol use. At $p=0.002$ the study shows high prevalence (41.3%) among ever married women—those who were divorced, separate or widowed. This is followed by women currently married or living with a partner (36.3%). This finding is consistent with Mbatia et al (2009) who found a higher prevalence of alcohol use among ever married urban Tanzanian women than never married women. Adusi-Poku et al (2013) also found that married women were more likely to consume alcohol than unmarried women.

Table 5.10: Percentage Distribution of Marital status and Alcohol use among women

Marital Status	Alcohol use		Total
	Yes	No	
Currently Married	36.3	63.7	256
Single	33.4	76.6	188
Divorced/Widowed/Separated	41.3	58.7	114
$\chi^2=12.412$	d.f.=2	$p=0.002$	

Source: Computed from EDULINK dataset, 2011

Literature on reasons for significant association between marital status and alcohol use is scanty and obscured. But it might be that divorced, widowed and separated women (table 3.2) often experience psychological turmoil and depression, leading to their higher drinking rate than other marriage groups. Higher prevalence among currently married women than never married women might be due to the marital and conjugal stress married women often encounter (Moore et al, 1997).

5.4.3 Migration Status and alcohol use

Table 5.11 further shows that non-migrants have the higher prevalence of alcohol use (60.8%) compared to migrants.

The significant association between migration status and alcohol use is consistent with Madsen et al (2005) who found that migrants in Greenland Inuit were less likely to consume alcohol than non-migrants. The reason for high prevalence among non-migrants in this study might be that non-migrants have well settled employment positions with higher disposal income compared to migrants (Madsen et al, 2005) in the Greater Accra Region, where this study was conducted.

Table 5.11 Percentage distribution of migration status and Alcohol use among women

Migration Status	Alcohol Use		Total
	Yes (%)	No (%)	
Non-Migrants	39.2	60.8	385
Migrants	17.8	82.2	163
$\chi^2 = 31.100$	d.f. = 7	p= 0.000	

Source: Computed from EDULINK dataset, 2011

CHAPTER SIX

FACTORS AFFECTING ALCOHOL USE AMONG WOMEN IN GHANA

6.1 Introduction

In the previous chapter (chapter five), a bivariate analysis was conducted to examine the relationship of each of the selected independent variables and women's alcohol use behaviours. It was found in the bivariate analysis that there is a significant association between most of independent variables and alcohol use in Ghana. However, a bivariate association between two variables does not necessarily imply a significant causal relationship between them, because in real life more than one independent variable operates to influence the dependent variable (Kistiana, 2009).

It was therefore important to carry out a statistical analysis which incorporated more than one independent variable at a time. The most suitable analytical technique was multivariate analysis which allowed the exploration of the effect of different independent variables on a dependent variable corrected for other independent variables (Tabachnick & Fidell 2007 cited in Kistiana, 2009). In this study, logistic regression model was used to determine the factors affecting alcohol use among women in Ghana. This chapter discusses the results obtained after fitting a binary logistic model.

6.2 Factors affecting alcohol use among women in Ghana

Table 6.1 displays results from the binary logistic regression model used to examine the association between the independent variables and alcohol use. The alcohol use variable was dichotomous, with 1 representing women who use alcohol in the last 30 days preceding the

survey, and 0 representing those who did not. Out of the total of 548 women interviewed, 180 women used alcohol in the last 30 days prior to the survey.

Results of Table 6.1 suggest that only four (migration status, age, employment status and religiosity) out of the seven independent variables included in the model were significant factors affecting alcohol use among women at the 0.05 significance level. The model produced a Nagelkerke R-square value of 0.225; suggesting that approximately 23% of the variation in alcohol use is explained by the variables entered in the model. It should also be noted that only the statistically significant variables are the bivariate analysis stage were used at the multivariate stage. Also to ensure a better fit of the model, religion which was significant at the bivariate analysis stage was also excluded from the binary logistic model.

6.2.1 Religiosity

The bivariate analysis (table 5.3) shows that as the number of religious attendance increases the prevalence rate of alcohol consumption among women reduces, at $p=0.000$. The story still remains the same when other independent variables were also considered at the multivariate level. Those who attended religious services at least once a week or month were less likely to use alcohol than those who never attend any religious service. The Odd Ratios (OR) in Table 6.1 show that those who attended religious services at least once a week were 0.342 times less likely to use alcohol compared to those who never attended any religious service. This finding is consistent literature which showed that religiosity is significantly negatively associated with alcohol use among women (Wells, 2010; Michalak et al, 2006; Ellison et al, 2008; Kang Sim et al, 2011).

There are two explanations for the negative association of religiosity and alcohol use. (1) Some religious faiths explicitly prescribe good health habits and prohibit many unhealthy

lifestyles including alcohol use, and (2) most faith groups teach that the body is a temple for the soul and that it should be treated with respect and appreciation (George et al, 2002; Ayers et al, 2009). The implication is that women who do attend most of the religious meetings are likely to be fully informed of the spiritual and physical consequences of unhealthy lifestyles; and hence less likely to ingest alcohol compared to women who, though belong to a particular religion, are not regular religious service attendants. The religious teachings often moderate the association between religious attendance and choosing to drink (Michalak et al, 2006).

6.2.2 Employment

There is also a statistically significant association between employment and alcohol use at the multivariate stage. Table 6.1 shows that unemployed women are less likely to use alcohol than employed women. The odd ratios indicate that unemployed women are 0.439 times less likely to use alcohol compared with employed women. This is consistent with other studies on employment and alcohol use (e.g. Chung et al, 2007; Moore et al, 1997; Seaman and Ikeguowu, 2010).

Whilst this significance is argued by the fact that employed women in an attempt to gain gender equality at the work place are often motivated to adopt the drinking patterns of men (Seama and Ikeguowu, 2010), the situation in Ghana is not clear, but, it might be that most employed women due to their occupation (sales/services) are likely to suffer job stress; and so in order to reduce stress they often resort often resort to alcohol consumption (Dawson et al, 2005).

6.2.3 Migration Status

At the bivariate analysis (Table 3.12), migration status was significantly associated with alcohol use with higher prevalence of consumption among non-migrants than migrants. At the

multivariate analysis stage too Table 6.1 shows that migrants (women born outside Greater Accra) are less likely to ingest alcohol compared to non-migrants. For example, the Odd Ratios show that migrant women are 0.463 times less likely to consume alcohol compared to non-migrant women. This finding is consistent with Madsen et al (2005) and Donath et al (2011). As stated in at the bivariate stage, the reason for the significant association, after taking other factors into considerations, is explained by the fact that non-migrants often have the highly qualified employment positions with higher disposable income compared to migrants (Madsen et al,2005).

6.2.4 Age

The beta values in table 6.1 show that as the age of a woman increases the prevalence rate of consumption also increases. Also, taking the odd ratios into consideration the table shows that the higher the age of a woman the higher the probability of the woman consuming alcohol. For example the odd ratios show that compared to women within 15-19 years age group, the probability of using alcohol is 2.978, 3.026 and 3.062 times as likely as women within the age groups of 20-29, 30-39 and 40-49 respectively.

This statistically significant relationship is contrary to other studies on age and alcohol use among women (e.g. IAS, 2008; Simon-Morton et al, 2001; Adusi-Poku, 2011). According to these studies alcohol consumption is mostly prevalent among women within their 20s and 30s; and that the prevalence decreases drastically beyond 40 years. The reasons for the inconsistencies are not obvious, but it could be due to the differences in setting of study compared to literature. While this study was conducted in a developing country where misreporting of ages in terms of age heaping and digit referencing, most of the studies on age and alcohol was done in the developed world where age misreporting is almost non-existent.

Table 6.1 Result of Binary Logistic Regression of Alcohol Use among Women

Independent Variables	B	Std. Error	Sig.	Exp (β)
Constant	-0.850	0.613	0.165	0.427
Religiosity				
Never (ref)	0.000			1.000
Once a month	-0.590	0.323	0.067	0.554*
Once/more a week	-1.072	0.254	0.000	0.342***
Ethnicity				
Akan (ref)	0.000		0.072	1.000
Ga-Dangme	0.294	0.266	0.269	1.342
Ewe	-0.376	0.477	0.430	0.686
Guan	-0.885	0.85	0.301	0.413
Gurma/Grusi/Mande	0.625	1.202	0.603	1.868
Mole-Dagbani	-0.864	1.080	0.423	0.421
Other ethnic groups	-1.516	0.652	0.020	0.220**
Locality				
Ussher Town (ref)	0.000			1.000
James Town	0.118	0.388	0.627	1.207
Agbogbloshie	0.342	0.379	0.366	1.408
Employment				
Employed (ref)	0.000			1.000
Unemployed	-0.823	0.306	0.007	0.439***
Age				
15-19 (ref)	0.000			1.000
20-29	1.091	0.444	0.014	2.978**
30-39	1.107	0.449	0.021	3.026**
40-49	1.119	0.492	0.023	3.062**
Marital status				
Currently married (ref)	0.000			1.000
Single	-0.311	0.262	0.235	0.733
Divorced/widowed/separated	0.160	0.266	0.546	1.174
Migration Status				
Non-migrants (ref)	0.000			1.000
Migrants	-0.770	0.306	0.012	0.463**

Nagelkerke R square =0.225 *p<0.10 **p<0.05 ***p<0.01 Ref (Reference category)

Another reason might be because most women in the other studies are formally employed compared to the informally employed majority (94%) of women in this study. And so unlike women in the developed world who mostly have lower prevalence at their 40s due to employment in the formal sector, the situation in Ghana is different with women likely to

experience the same job stress throughout their life time because most of them are employed in the informal sector (sales/services).

6.3 Testing Hypotheses

The bivariate analysis showed a significant association between the hypotheses on employment; marriage and alcohol use. None of these variables were however statistically significant in the binary logistic regression model, though the hypotheses were confirmed. While these findings are consistent with some studies (e.g. Wu et al, 2012; Pomerleau et al, 2008), it is contradicting most literature (Barros et al, 2007; Chung et al, 2007; Adusi-Poku et al, 2012; Dawson et al, 2005; Seaman and Ikeguowu, 2010); which showed significant associations between education; employment; marital status and alcohol use among women at the multivariate stage.

The differences in the results might be due to the methodology and setting of this study. (1) Unlike most studies (e.g. Barros et al, 2007) and also constrained by the nature of the available alcohol data, the outcome variable in this study (alcohol use) was dichotomous. This study was unable to differentiate the type of alcoholic beverages (i.e., beer, wine, and liquor) consumed, the frequency and pattern of consumption; or investigate the consequences of drinking among the women. This is likely to have an effect on the outcome of the hypotheses. (2) Besides methodology, most works on alcohol use among women were done in the developed world (like USA, UK, Australia and Germany). The levels of education, employment, conjugal circumstances and drinking culture in these countries are entirely different compared to countries in sub-Saharan Africa, especially Ghana. Hence refuting of the stated hypotheses is most likely.

CHAPTER SEVEN

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENATIONS

7.1 Introduction

This study showed that there are basically three factors that affect alcohol consumption among women in Ghana: Economic, social and demographic. In this chapter, a summary of the results obtained in the analysis of these factors are discussed.

As stated in chapter one, this study had three specific objectives. The first objective was to examine the prevalence of alcohol use among women in Ghana. The second was to examine the socio-economic and demographic factors affecting alcohol use among women in Ghana. The last objective was to make recommendations for policy implementation. The first objective was answered in chapter four; while the bivariate and multivariate analysis was used to answer the second objective in chapter five and six. The third objective has been achieved in this chapter.

7.2 Objective one: Prevalence of alcohol use among women

The study showed that about thirty three percent of women were regular current consumers of alcohol in Ghana; while the sixty seven percent were not. This on the average makes the prevalence of rate of alcohol consumption among Ghanaian women to be 33%.

7.3 Objective two: socio-economic and demographic factors affecting alcohol use

To achieve this objective bivariate and multivariate analyses were used. The bivariate analysis was based on tests of association (chi-square tests) and the multivariate analysis was based on binary logistic regression analysis. The study showed that at the bivariate analysis stage almost all the social, economic and demographic factors were significantly associated with

alcohol use. The only exceptions were the predictor variables education and income level. However in the multivariate analysis stage only the predictor variables religiosity, migration status, age and employment were statistically significantly associated with alcohol use: when seven predictor variables were fitted in the model, at the 0.05 significance level.

Inconsistence with the bivariate analysis, the multivariate results showed that the religiosity of a woman determines her likelihoods of abstention from alcohol use. Measuring religiosity through number of religious services attendance, the results at the bivariate and multivariate stages showed that there are higher rates of abstention among women who attended religious once or more times in week than any other categories. Also, women who attended religious services at least once a week were less likely to use alcohol than those who never attended any religious meeting.

The migration status of a woman is also significant at both the bivariate and multivariate analyses. At the bivariate analysis there is higher prevalence of abstention from alcohol use among migrant women than non-migrant women. The multivariate stage also shows that migrant women are less likely to consume alcohol than no-migrant women. The explanation for this significant association is that non-migrant women often have well positioned job opportunities than migrant women, and hence often tend to have higher disposable income compared to migrant women. It is worth noting at this stage that all the hypotheses stated in chapter two, though confirmed at the multivariate regression analysis, and were not significant at the 0.05 level of significant. This could be as a result of the differences in methodology and setting of this study compared with other studies on alcohol use among women.

Also employed women are more likely to consume alcohol than unemployed women. For the age of a woman, the multivariate analysis showed that as the age of a woman increase there is a higher probability of the woman consuming alcohol.

7.4 Conclusion

The prevalence rate of alcohol use among Ghanaian women is indeed high (33%) compared with studies done in other sub-Saharan African countries; with religiosity; migrations status; age; and employment of a woman; as the major significant factors affecting alcohol use. While this study is likely to confirm the anecdotal claims of changing behaviours of women on alcohol use, the source of the data of this study makes a nationwide generalization of the results difficult. A more extensive empirical research should take into consideration the type of alcoholic beverage, the pattern and frequency of consumption, as well as the associated health implications; so as to fully ascertain the problem of alcohol consumption among women in Ghana. Also, a longitudinal study on alcohol use is needed to be able to draw more accurate conclusion on alcohol use among women in Ghana. This is because studies have shown that women often report differently at different times about their alcohol consumption behaviour (Srandberg-Larsen, 2008).

7.5 Recommendation

Base on the above findings the following are recommended for policy implementations.

7.5.1 Advocacy for Religious groups

The study in the bivariate and multivariate analyses shows that the number of times a woman attended religious meetings influence her alcohol consumption behaviour. The

implication is that the idea of religion should be encouraged especially among women. Since majority of Ghanaians are Christian, the government through the Ministry of Chieftaincy and Culture could make this possible by facilitating religious teachings through subsidies provision in terms of religious establishment and broadcasts in the media.

7.5.2 Sensitization against alcohol consumption

The study shows higher prevalence of alcohol consumption among women in Ghana. This prevalence poses the women especially pregnant women to risk of maternal mortality, foetal alcohol syndromes etc. Consequently, sensitization against alcohol consumption is needed to deter women from the behaviours. The study has shown that the level of education of a woman determines the prevalence rate, and that tertiary educated women consume less alcohol compared to women with secondary education at the bivariate and multivariate analysis. The study continues to show that tertiary educated women are less likely to consume alcohol compared to women with no education. The point is, there are lower prevalence and less likelihood among educated women probably because women with this type of education might be fully aware of the health implications of alcohol use and hence make attempts to abstain. The government of Ghana through the Ministry of Health and Ghana Health Service should embark on intensive national sensitization exercise against alcohol use and its implication; so as to reduce the prevalence rate.

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